

THE NAUTILUS.

VOL. XXX.

SEPTEMBER, 1916.

No. 5

A NEW CUBAN ZACHRYZIA.

BY JOHN B. HENDERSON.

PLEURODONTE (ZACHRYZIA) TORREI n. sp. Pl. I.

Imperforate, depressed, solid, straw color with russet streaks strongly arched forward, darker just behind the aperture. Four whorls, first $\frac{1}{2}$ subtly spirally lirate and then malleated; the rest finely costulate striate, the striae arching forward and becoming wavy and complicated on the last whorl, and especially in the peripheral region, by two sets of revolving striae, one microscopically fine, giving under the lens a wrinkled appearance. There is a smooth shining area about the base. Last whorl abruptly descending in front, strongly carinated, the carina directed upward, so that the whorl is concave above and convex below except in the last $\frac{1}{4}$ whorl, where the carina is less obvious and the whorl becomes swollen and convex above. The outline of the final $\frac{1}{4}$ whorl is nearly straight, and bulges out into a gibbous ring about the aperture. Aperture small, very oblique, truncate oval. Peristome thickened, slightly expanded, white; basal margin horizontal, nearly straight, forming an obtuse angle with the curved outer lip; obsoletely toothed near the insertion of the columella.

Major diam. 31; min. diam. 25; height 17; ap. (inside) 11 by $8\frac{1}{2}$ mm.

Locality: Farallones de Canipu, "Cayo del Rey" in the Mayari hills of Oriente Province, Cuba.

The shell has a lop-sided appearance, attenuated on the left, and swollen on the right side. The peculiar shape suggests a

deformity ; but many specimens taken without other forms or variation preclude such conclusion. The species is more closely comparable with *P. guantanamoensis* and *P. proboscidea* than with any other of the group ; but from these it is separable by the revolving sculpture and the up-tilted carina. It is the only carinated *Zachrysis* yet observed.

THE ANATOMICAL STRUCTURE OF GONIDEA ANGULATA (LEA).

BY A. E. ORTMANN.

The specimens at hand belong to the var. *haroldiana* Dall (Smithson. Misc. Coll. 50, 1908, p. 499; Hannibal, Proc. Malacol. Soc. London 10, 1912, p. 127, pl. 6, f. 10; Simpson, Descript. Cat. Nai., 1914, p. 466). They have been collected by H. Hannibal in Coyote Creek, Milpitas, Sta. Clara Co., California, partly on March 31, 1913, and partly in June, 1913. Over two dozen were received, among them males, sterile and gravid females.

Anal and *supraanal openings* separated by a well-developed mantle-connection, which is about $\frac{2}{3}$ as long as the anal, and about half as long as the supra-anal. Inner edge of anal with fine papillae. *Branchial opening* separated from the anal by the gill-diaphragm, its inner edge with large papillae ; branchial well defined anteriorly by the sudden disappearance of the papillae.

Palpi subfalciform, their posterior margins connected for about the half of their length.

Gills long and broad, the inner the broader. Outer gill gradually narrowing in front, its anterior end at the highest point of the line of attachment of the mantle, quite distant from the palpi. Inner gill narrowing more suddenly, and its anterior end about midway between palpi and anterior end of outer gill or at two thirds of this distance, but there is always a space behind the palpi. Outer lamina of outer gills entirely connected with mantle. Inner lamina of inner gills free from abdominal sac, except at its anterior end. Behind the foot, the two inner laminae of the inner gills are connected. Thus the gill-diaphragm is complete.